FCS Program Overview

Advanced Planning Briefing for Industry (APBI)

John Kelley
Director - Supplier Management & Procurement
Future Combat Systems

FCS Program Status

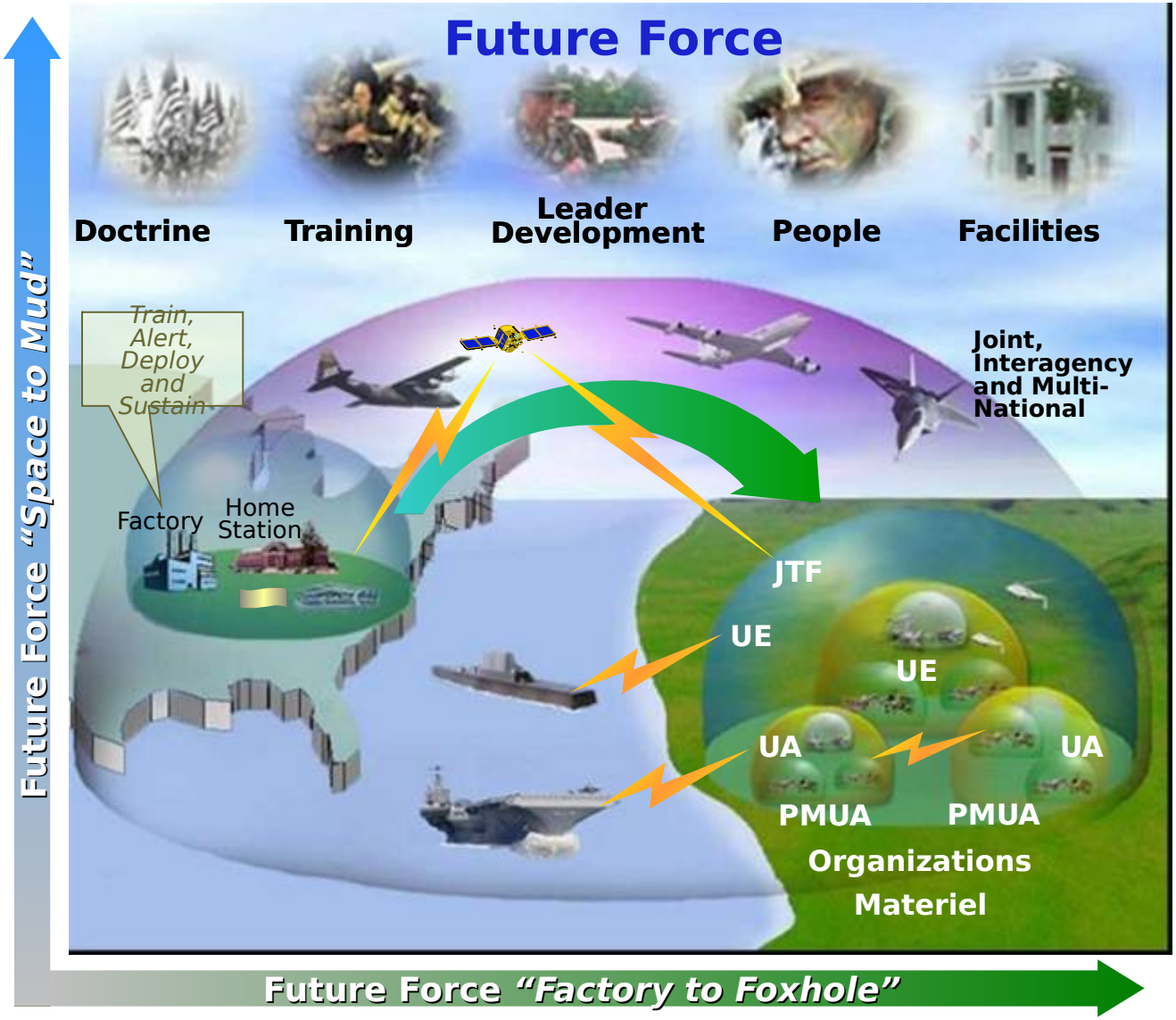
FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry

- **Program keeping pace with Army needs**
  - Accelerating needed capabilities to our soldiers
  - Integrating Modularity and FCS (Spin Outs, Experiments)
  - Transitioning from OTA to FAR; maintain focus on executio
  - Successful System-of-Systems Functional Review
- **On cost, On schedule, On performance:**
  - SPI = 99.4%, CPI = 100.4%
- **FY06 is critical ramp-up year**
  - $3.4B President Budget
  - Broad industry ramp-up (Network and Platforms)
  - Extensive Software and Hardware deliveries
  - First major field experiment (Experiment 1.1, JEFX06)
  - Long lead for Spin Out 1
  - Initial Preliminary Design Review (IPDR)
  - Integration Phase 1 (IP1)

Program Momentum is Strong… Maintain Velocity

FCS User Requirements

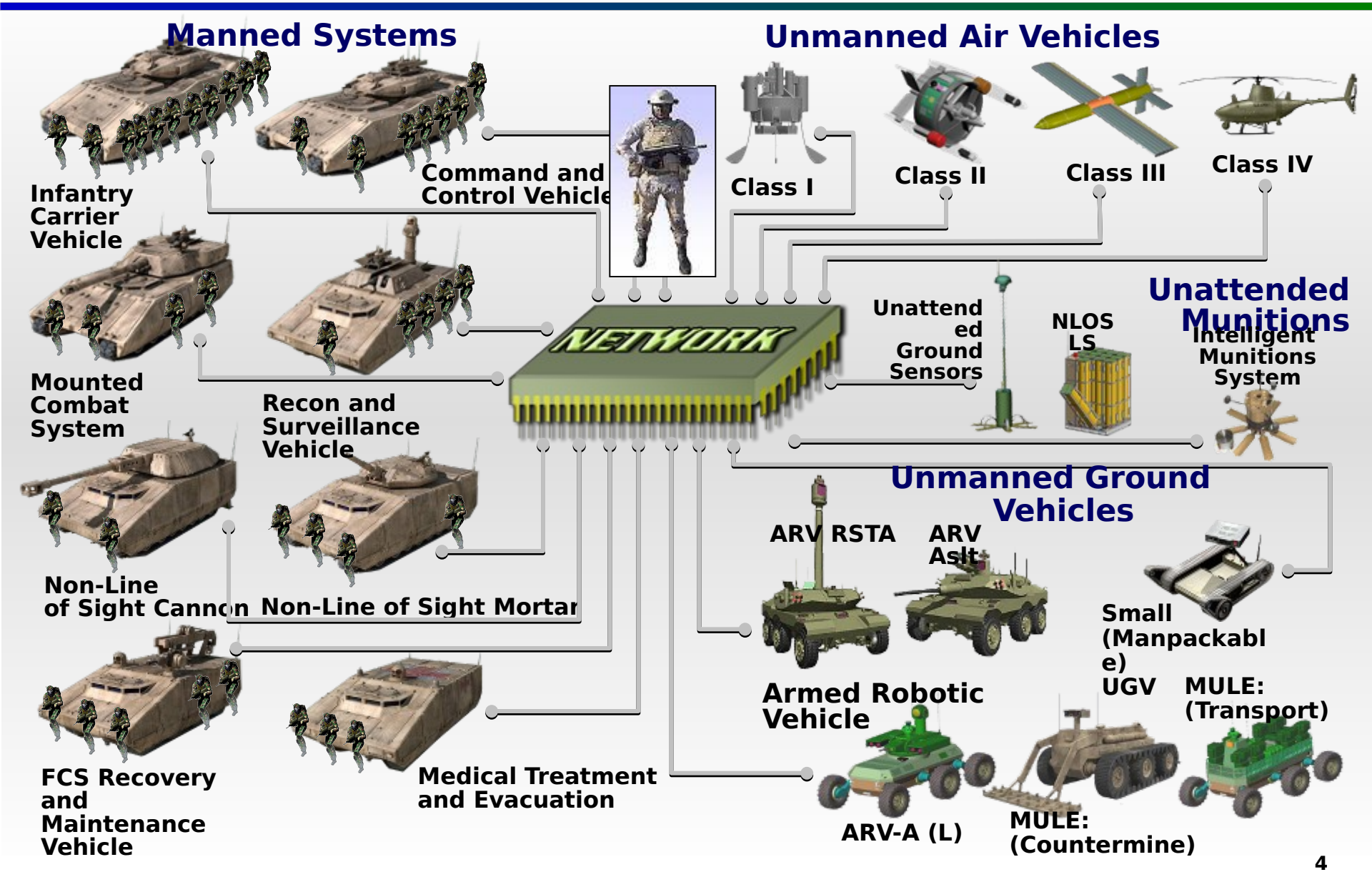
FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry



- Joint, Interagency and Multi-National Capabilities
- Increased Strategic Responsiveness
- Dominant across Full Spectrum Operations
- Campaign Quality Force
- Enabled by Knowledge
- Adaptive Modular Organizations
- 3-7 Days Self-sustainment
- FCS: Family of Systems/System-of-Systems
- Soldiers and

FCS System-of-Systems

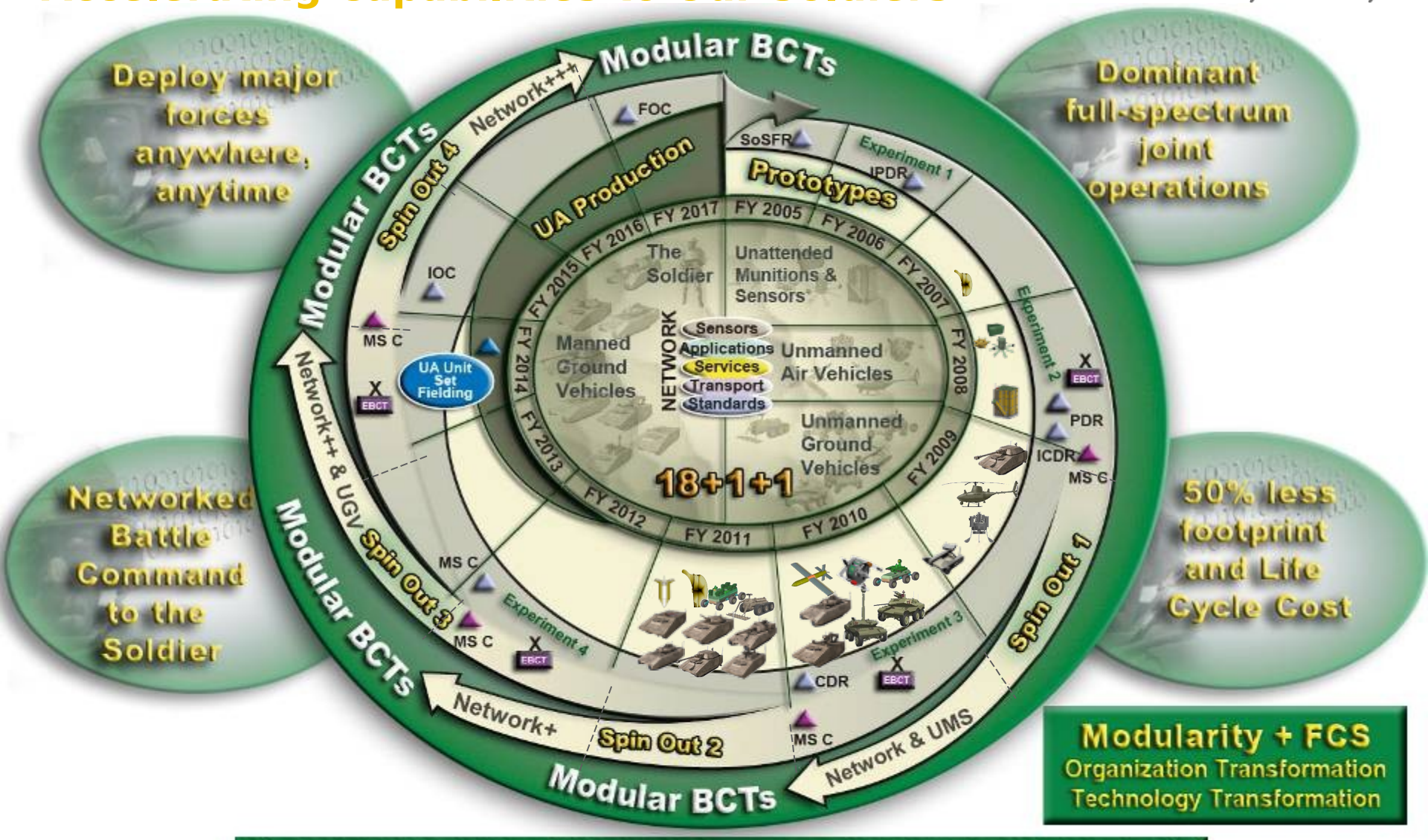
FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry



FCS Master Program Plan

Accelerating Capabilities to Our Soldiers

FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry

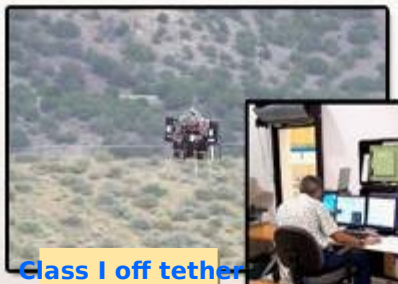


Modularity + FCS
Organization Transformation
Technology Transformation

See First, Understand First, Act First, Finish Decisively

Recent Significant Events

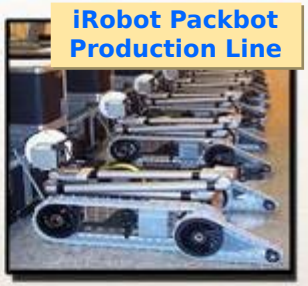
FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry


Class I off tether

Class IV UAV SIL

SOSIL 2005

PAM Warhead Testing

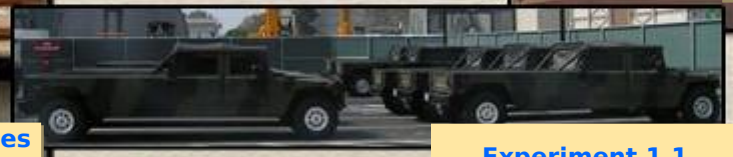

iRobot Packbot Production Line

GDAIS ICS Demonstrator at Fall AUSA

120MM Cannon

Packbot on Patrol in Iraq

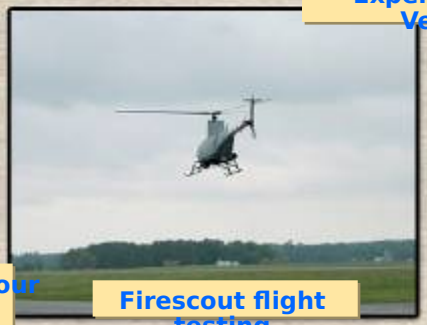
SARTI UGV


GDAIS Completes First Test Station Build for ICS

Experiment 1.1 Vehicles

Active Protection System

Congressional Staff Tour of Schweizer Plant (1/10/05)

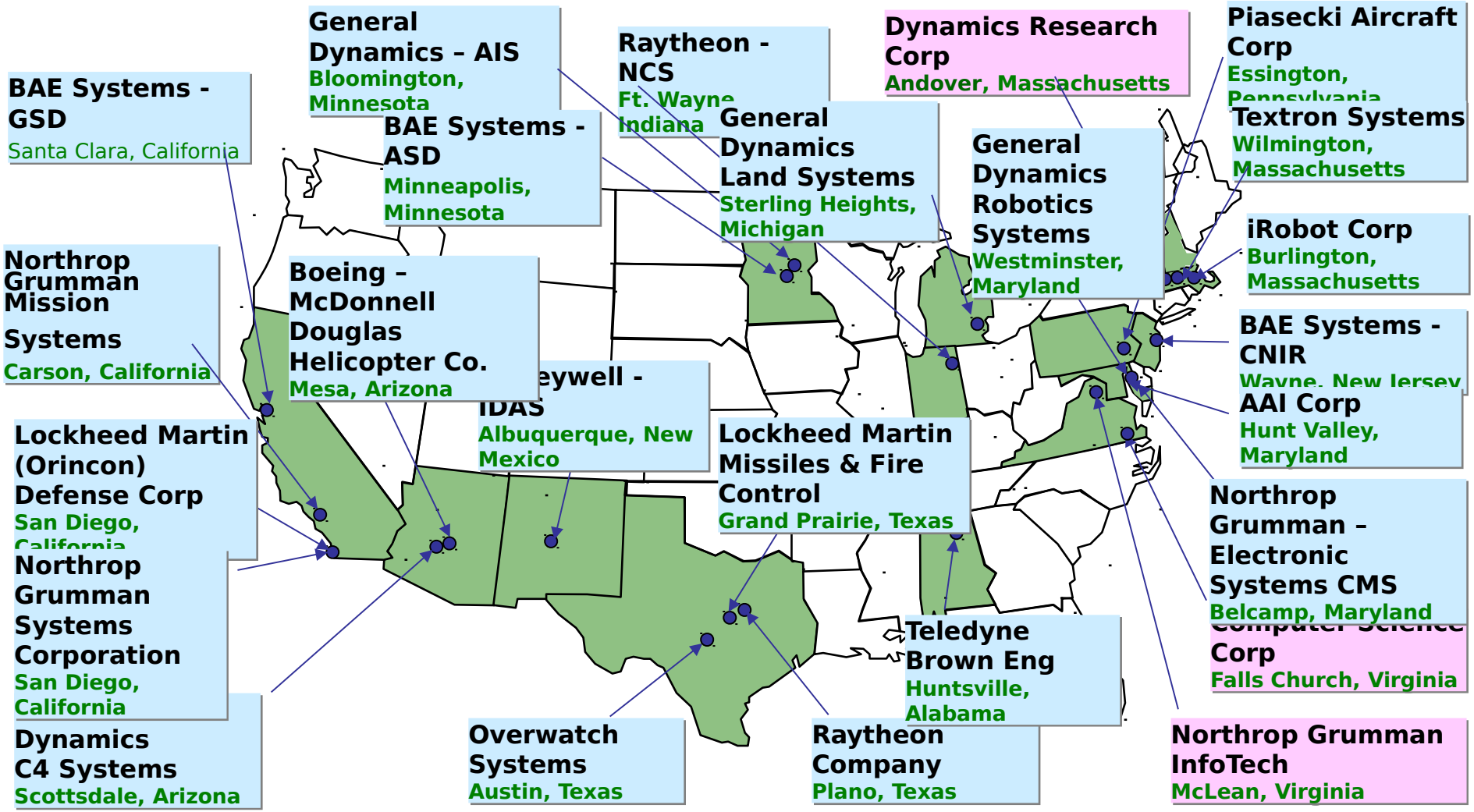

Firescout flight testing

NLOS Cannon

After Action Review Meeting Center

FCS "Best of Industry" Team

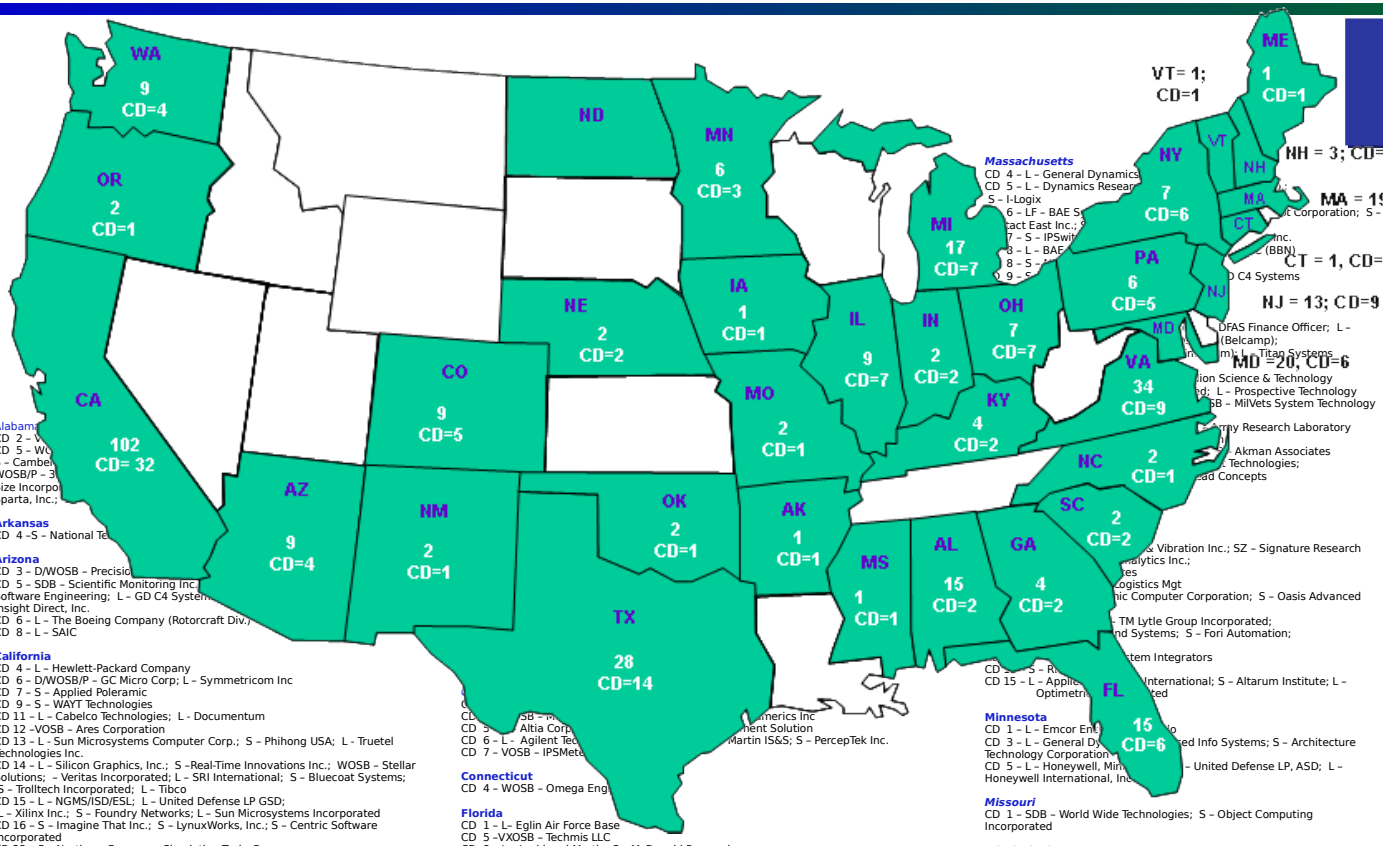
FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry



FCS One Team Industry Base

FUTURE COMBAT SYSTEMS
FCS
One Team – The Army/Defense/Industry

34 States, 156 Congressional Districts, 358 Suppliers



Alabama
CD 2 – V
CD 5 – WO
S – Cambe
WOSB/P – 3
Size Incorpo
Sparta, Inc.;

Arkansas
CD 4 –S – National Te

Arizona
CD 3 – D/WOSB – Precisio
CD 5 – SDB – Scientific Monitoring Inc.;
Software Engineering; L – GD C4 Syste
Insight Direct, Inc.
CD 6 – L – The Boeing Company (Rotorcraft Div.)
CD 8 – L – SAIC

California
CD 4 – L – Hewlett-Packard Company
CD 6 – D/WOSB/P – GC Micro Corp; L – Symmetricom Inc
CD 7 – S – Applied Poleramic
CD 9 – S – WAYT Technologies
CD 11 – L – Cabelco Technologies; L - Documentum
CD 12 –VOSB – Ares Corporation
CD 13 – L - Sun Microsystems Computer Corp.; S – Phihong USA; L - Truetel Technologies Inc.
CD 14 – L – Silicon Graphics, Inc.; S –Real-Time Innovations Inc.; WOSB – Stellar Solutions; – Veritas Incorporated; L – SRI International; S – Bluecoat Systems; S – Trolltech Incorporated; L – Tibco
CD 15 – L – NGMS/ISD/ESL; L – United Defense LP GSD;
L – Xilinx Inc.; S – Foundry Networks; L – Sun Microsystems Incorporated
CD 16 – S – Imagine That Inc.; S – LynuxWorks, Inc.; S – Centric Software Incorporated
CD 23 – S – Northrop Grumman Simulation Tech, Corp;
L – California Electric Supply
LF – Kidde Dual Spectrum Inc.; S – Visual Purple
CD 24 – L – Knurr, Inc.
CD 26 – S – Chang Industry
CD 29 – L – Jet Propulsion Laboratory
CD 30 – L – HRL Laboratories LLC; S – Abacus Programming; L – Richardson Electronics LTD;
WOSB – Sierra Software; WOSB – Demicom; S – Techfinity Incorporated;
S – Techfinity Incorporated
CD 32 – L – Hummer of West Covina
CD 33 – S – Integrated Data Corporation; S – Scalable Network Technologies Inc.;
L – USC Dept of Contracts
CD 36 – L – Raytheon; L – Sun Microsystems; WOSEB – BD Systems; S – Edmund H. Conrow; S – Galorath;
WOSEB – MB Dolphin & Associates LLC; SE – Alico Systems
CD 37 – SE – Alico Systems; L – Northrop Grumman Mission Systems
CD 38 – L – McMaster Carr Supply Co.; L - Newark Electronics WF; S – Hurlen Corporation\
CD 39 – L – Kaiser Composite, Inc.; S – Technovative Applications, Inc.
CD 40 – S – Humphreys & Associates, Inc.; S – California Chassis; S – Marway Products Incorporated;
S – Audio Visual Innovations; WOSB – Coastal Component Industries Inc.; S – John B. Peller; Raytheon;
S – RTI International
CD 42 – WOSB – 2nd Source Wire & Cable Inc.; S – Bisco Industries Inc.; S – W5 Incorporated; S – Data West Computer; S – Interbase Corporation
CD 43 – S – LA Custom Coach Inc.; S – Premier Metal Products
CD 44 – L – Endevco
CD 46 – L – International Business Machine Corp (IBM);
S – Celtic Computer; S – MillenWorks; WOVSB – Pulizzi Engineering Incorporated; WOSDB – Carrillo Business Technologies Inc.; L – Software Prose Incorporated
CD 47 – S – Textile Products Inc.

Connecticut
CD 4 – WOSB – Omega Eng

Florida
CD 1 – L- Eglin Air Force Base
CD 5 –VXOSB – Technis LLC
CD 8 – L – Lockheed Martin; S – McDonald Research
D/WOSB – Productivity Apex, Inc.
CD 15 – L – Harris Corporation
CD 22 – S – Zeroc Inc
CD 24 – L – FPMI; General Dynamics C4 Systems; D/SVXOB – JHT; L – Northrop Grumman Laser Systems; L – SAIC;
L – Sparta; L – University of Central Florida; L – US Govt Executive Program Office

Georgia
CD 6 – S – Applied Systems Intelligence, Inc.; WOSB – S A Technologies; LF – W W Fischer Electronic Connectors
CD 10 – D/VOSB – All Points Logistics Inc.

Iowa
CD 2 – L – Rockwell Collins Inc., Government Systems

Illinois
CD 5 – S – AMCO Engineering Co. L – Newark Inone Incorporated
CD 7 – L – LMS North America Inc.
CD 10 – L – CDW Computer Centers Inc.; S – Cabtron Systems Incorporated
CD 13 – L – Advizor Solutions
CD 14 – S – Equipto Electronics
CD 15 – L – SAIC Research and Development
CD 18 – L – Caterpillar Logistics Services Incorporated

Indiana
CD 7 – L – Allison Transmission Div. of General Motors
CD 8 – S – Cholas Enterprises

Kentucky
CD 2 – LX – Alion Science and Technology; VOSB – DTECH Consulting; L – MPRI
CD 3 – S Fourth Avenue Office Supply

Massachusetts
CD 4 – L – General Dynamics
CD 5 – L – Dynamics Resear
S – I-Logix
6 – LF – BAE S
tact East Inc.;
7 – S – IPSwit
8 – L – BAE
8 – S –
9 – S –
Corporation; S –
Inc.
(BBN)
C4 Systems
DFAS Finance Officer; L –
(Belcamp);
Titan Systems
ion Science & Technology
; L – Prospective Technology
SB – MilVets System Technology
rmy Research Laboratory
Akman Associates
Technologies;
ad Concepts
Vibration Inc.; SZ – Signature Research
alytics Inc.;
es
ogistics Mgt
hic Computer Corporation; S – Oasis Advanced
TM Lytle Group Incorporated;
nd Systems; S – Fori Automation;
stem Integrators
CD 15 – L – Applie International; S – Altarum Institute; L – Optimetri ted

Minnesota
CD 1 – L – Emcor En
CD 3 – L – General D ed Info Systems; S – Architecture Technology Corporation
CD 5 – L – Honeywell, Mir – United Defense LP, ASD; L – Honeywell International, Inc

Missouri
CD 1 – SDB – World Wide Technologies; S – Object Computing Incorporated

Mississippi
CD 2 – L – Graybar Electric Company Inc.

North Carolina
CD 4 – S – Research Triangle Institute;
L – Underwriters Laboratories Inc

Nebraska
CD 2 – L – Hewlett-Packard Company
CD 3 – S – Trinity Steel Supply Company

New Hampshire
CD 1 – S – Predictable Network Solutions
CD 2 – WOSB – Lyme Computer Systems; S – Red River Computer Co.

New Jersey
CD 1 – LW – Omega Engeering
CD 2 – L – BAE Systems Information & Electronics
CD 3 – S – Price Systems LLC
CD 4 – WOSB – Future Skys Incorporated
CD 5 – SDB – Datalis Solutions Corp.
CD 6 – L – Telcordia Technologies, Inc.
CD 8 – L – ITT Industries Inc. A/CD; L – Kearfott Guidance & Navigation

New Mexico
CD 1 – L – Honeywell IDAS; L – Northrop Grumman Mission Systems

New York
CD 1 – S – MJI Associates
CD 2 – L – BAE Systems Information & Technology
CD 8 – S – Adacore Technologies
CD 21 – L – TACOM-ARDEC Benet Laboratories
CD 22 – L – BAE Systems Control
CD 29 – L – Impact Technologies LLC; L – Schweizer Aircraft Corporation

Ohio
CD 3 – L – MTC Technologies Inc.
CD 4 – S – GTJ Enterprises
CD 5 – L – Verhoff Machine & Welding
CD 6 – L – Titanium Metals Corp
CD 7 – L – AFRL/SNJW
CD 8 – L – Northrop Grumman – Xetron
CD 15 – L – Battelle Memorial Institute

Oklahoma
CD 4 – FSDB – Tec-Masters Inc.; S – Telos OK, LLC

Oregon
CD 1 – L – Heifetz, Halle Consulting Group LLC; L – Tektronix Incorporated

Pennsylvania
CD 9 – S – Kotianger Management Consulting
CD 13 – S – Gemplus Corporation
CD 14 – L – National Robotics Engineering Consortium; SDB – Timesys Corporation
CD 18 – S – Black Box Corp of PA
CD 19 – VOSB – International Logistics Systems Inc.

South Carolina
CD 1 - S - Innovative Decisions Inc.
CD 2 – S – Vetronix Research Corporation

Texas
CD 3 – WOSB – M and J Strategies Inc; S – Mustang Technology; E/WOSB – QC Plus Computers; L – Raytheon GSD, MFRFS; L – Raytheon Network Centric Systems; DV/WOSB – Savage Precision Fabrication Inc.; L – Software Spectrum Inc.
CD 4 – S – CAE Soft Corp
CD 5 – S – Techprodx Group; WOSB – Aerospace Fasteners
CD 6 – S – JR's Machine Shop
CD 7 – S – Vector ESP Inc.; S – Welcom
CD 16 – S – Technical Solutions Inc.
CD 21 – VOSB – Austin Info Systems Inc.; L – National Instruments Corporation
CD 22 – S – Naknan Incorporated
CD 24 – L – Lockheed Martin Missiles & Fire Controls
CD 25 – S – Symtx Incorporated
CD 26 – L – Graybar Electric Company Inc.; L – Ten on Eleven Incorporated
CD 29 – L – Intec Engineering
CD 30 – SEB – Quality Solutions Inc.; L – Southwestern Bell Tele Co
CD 32 – WOSB – Archive Supplies Inc.; S – Communications Supply Corp; WOSB – Data Projections Inc.; S – Source Inc.

Virginia
CD 1 – L – MPRI
CD 2 – L – Bridgeborn LLC
CD 3 – LX – Computer Sciences Corp; XVOSB/Z – MYMIC LLC
CD 4 – VOSB – Logistics Management Resources; L – MPRI
CD 6 – L - SAIC
CD 8 – SX – EXAGRID; SN – Human Resources Research Org;
S – Frank Kendall; L – LMI; L – Lockheed Martin Orincon Div; SDB – MPSC; L – MPRI Incorporated; L – SAIC; S – Booz-Allen Hamilton
CD 9 – L – General Dynamics Armament and Technical
CD 10 – S – DLT Solutions, Inc.; L – GTSI Corp; VXOSB – Innovative Management Concepts (IMC); L – Integrated Data Systems; S – SPEC; S – SPI; L – Calian Technology (US) LTD, DBA; SDB – Professional Software Engineering
CD 11 – SDB – BRTRC Inc.; L – EDS; SEB – Invoke LLC;
L – Night Vision & Electronic Sensors Directorate; L – Northrop Grumman Info Tech; S – Serco North American (formerly RCI);
S – Sparta Inc.; L – Boeing S&IS; S – Vitech

Vermont
CD 00 – L – General Dynamics Armament and Technical Products Inc.

Washington
CD 2 – S – Fluke Electronics Corporation
CD 7 – S – F5 Networks Incorporated
CD 8 – SDB/P – General Microsystems Inc.; L – Hitachi Data Systems Corp.; CL – Parametric Technology Corporation; VOSB – Availian; S – Construx Software

Best of Industry Across the Nation

Partner Opportunities

FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry

- Opportunities for both the LSI and partners are listed on or linked to the FCS website
- Opportunities exist for 2nd and 3rd tier support to recent, pending and future selections

Example from FCS Website

FCS Business Opportunities

Intelligence, Surveillance, and Reconnaissance | C4ISR - Battle Command | C4ISR - Network Systems | Unmanned Ground Vehicle | Unmanned Air Vehicle | Manned Ground Systems | Supportability | Training Support

FCS Partner Contact Information	Business Opportunities
Unmanned Ground Vehicles	
General Dynamics Advanced Information Systems Bloomington, MN Review Information at Web Address www.gd-ais.com under Supply Chain Management, "*How to Sell to GDAIS*" Email: Systems.Support@gdc4s.com	General Purpose Processors Graphics Processors Fixed and Removable Storage Media Storage Controllers Network Switches and Routers Firewalls Network Intrusion Detection Cross Domain Guards Chassis and Chassis backplanes Power Supplies Fiber Optic Cabling and Copper Cabling Conversion Submit Supplier Information
Top	

Partner Contact Information

FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry

Partners	Contact Name	Phone Number	Email
Raytheon Network Centric Systems	Valerie King	508-490-2331	valerie_king@raytheon.com
Raytheon Network Centric Systems	Randy Whitaker	972-344-8302	r-whitaker@raytheon.com
Northrop Grumman Integrated Systems	Vicky Harper-Hall	310-814-0550	Vicky.Harper-Hall@ngc.com
Northrop Grumman Information Technology	Sandy VanDerEems	703-556-1714	Sandy.VanDerEems@ngc.com
Northrop Grumman Mission Systems	Pat Austin Jack Beckwith	703-345-7888 310-764-9831	Pat.Austin@NGC.COM john.beckwith@ngc.com
Northrop Grumman Electronic Systems Corp.	Susanne Adams	410-765-8269	Susanne.adams@northropgrumman.com
Northrop Grumman Mission Systems	Pat Austin	703-968-1244	Pat.Austin@NGC.COM
General Dynamics Robotic Systems	Gerry Simmons	410-876-9200	gsimmons@gdrs.com
General Dynamics C4 Systems	Stephanie Poppe	480-441-7255	Stephanie.poppe@gdds.com
General Dynamics Land Systems	Doug Gamache	586-825-7883	gamached@gdls.com
General Dynamics Advanced Information Systems	Lynn Simmons Gary Muellenberg	508-880-1658 952-956-5457	Lynn.Simmons@gdc4s.com Gary.Muellenberg@gd-ais.com
Lockheed Martin ORINCON Defense	Regina Stout	610-354-3151	regina.c.stout@lmco.com
Lockheed Martin Missiles and Fire Control	Cathy Usztan-Bedford	972-603-1268	cathy.usztan-bedford@imco.com
BAE Systems	James Nunemaker Alex Carroll John Grindle	973-305-2604 703-668-4457 703-668-4237	james.nunemaker@baesystems.com alex.carroll@baesystems.com john.grindle@baesystems.com
Textron Systems	Jim Hester Bruce Boucher	978-657-1236 978-618-1678	Jhester@systems.textron.com bboucher@systems.textron.com
Dynamics Research Corp.	Pam Rodgers	978-475-9090 x2584	prodgers@drc.com
Honeywell Defense & Space Electronic Systems	Bill Spofford	505-828-5548	billspofford@honeywell.com
BAE Systems	Barbara Knox	717-225-8077	barbara.knox@udlp.com
BAE Systems	Rick Richter Lynn Arholm	763-572-7904 763-572-6846	richard.richter@udlp.com lynn.arholm@udlp.com
Computer Sciences Corp.	Addie Olsen	703-736-3773	aolsen@csc.com

FCS Business Opportunities

FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry

Technology Areas of Interest

FUTURE COMBAT SYSTEMS
FCS
One Team–The Army/Defense/Industry

Mounted and Dismounted Soldier Survivability

- **Advanced Soldier Health Monitoring Systems**
- **Enhanced Standoff Mine Detection on Unmanned Aerial Vehicles**
- **Kinetic Energy Active Protection Systems**
- **Laser Hardened Sensor Vision**
- **Lightweight Appliqué Armor**
- **Mine Detection on Manned Ground Vehicles**

Human Factors and Training

- **Advanced Remote/Distributed Training Environments and Architectures and Effects**
- **Methods for Training Command Decision makers Under Time Stress**
- **Models and Demonstrations for Human Factors in Remote Vehicle Control**

Force Lethality

- **Advanced Line-of-Sight Lethality and Effects**
- **Advanced Mounted Combat System Ammunition**

Sustainment Footprint

- **Advanced Line-of-Sight Lethality**
- **Advanced Vehicle Drive Train Components**
- **Failure Models for Embedded Digital Electronics and Mother Boards**
- **Fault Tolerant/Self-Repairing Computer Operating Systems**
- **Ultra High Density Energy Storage**
- **Ultra Reliability Prognostics**

Survivability

- **Gap Bridging by 20-Ton and 6-Ton Vehicles**
- **Improvised Explosive Device (IED) and Unexploded Ordnance (UXO) Sensing and Neutralization on the Move**
- **Innovative Mine Detection by Dismounted Soldiers**
- **Mine Clearance and Neutralization by Autonomous Unmanned Vehicles**

How to Get Involved with FCS

- Regularly check the FCS Website Home Page at: www.boeing.com/fcs
- Located on this website:
  - FCS Business Opportunities of the LSI and its Partners (Contacts with websites)
  - Information on Submitting Unsolicited Proposals and Questions
  - Partners' Requests for Quotations / Information
  - FCS Business Opportunities
    - **FCS Supplier Information Submittal Form**
  - Supplier Diversity information (specific LSI / Partner Small Business contacts provided in FCS Business Opportunities Brochure)
  - FCS calendar with upcoming conferences and events
- Reach out to the LSI and Partners to express your interest and capability
- Focus on areas of technology and express interest across the One Team

FCS External Web Site

FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry

Partner lists and Website links

Submission of Proposals not covered by an RFP

Partner posted solicitations for requests for information

Partners opportunities, contacts, and submittal form, and LSI Technology areas of interest

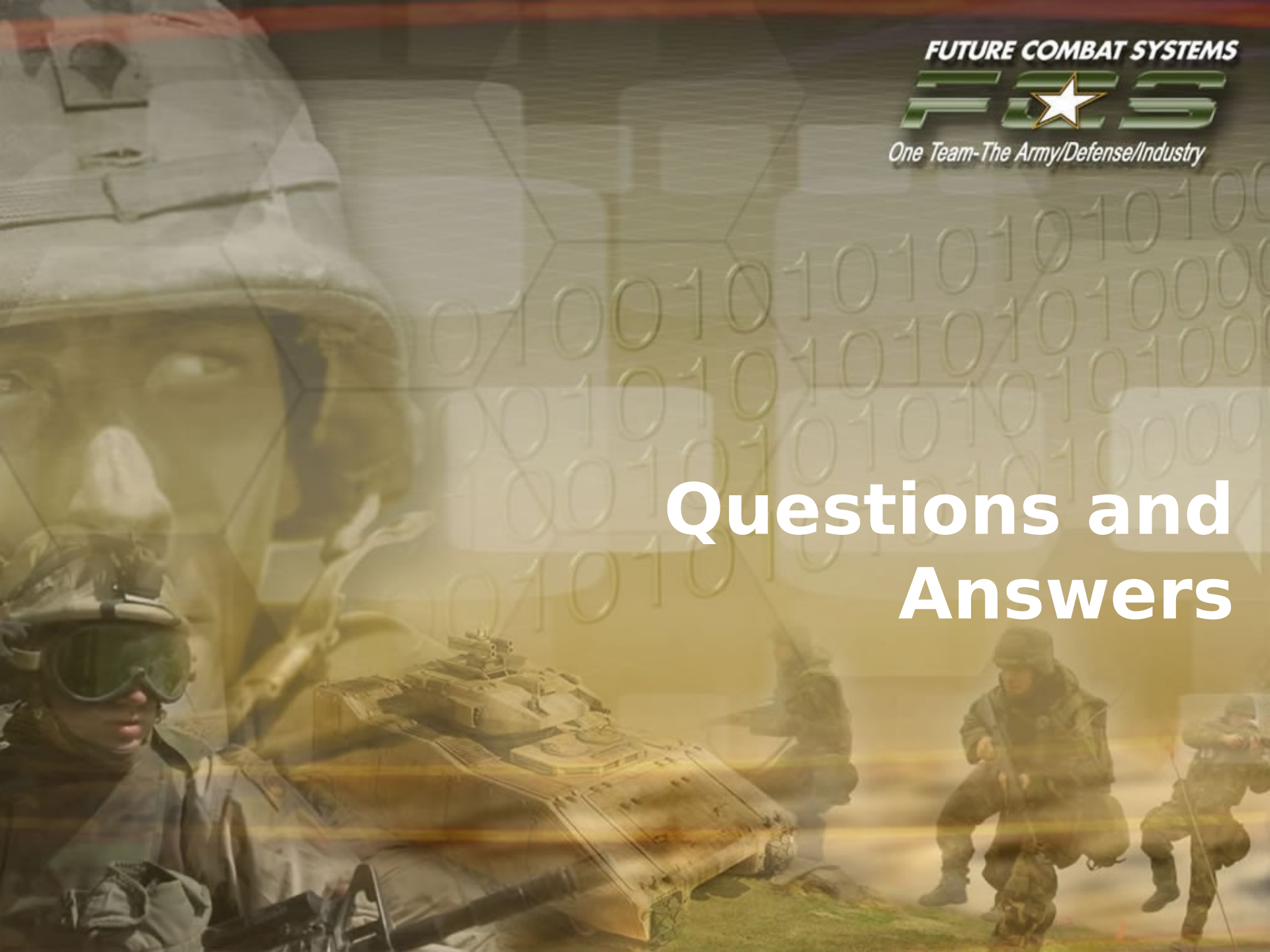
Supplier Diversity information and contacts

LSI posted solicitations (requests for information/ proposals, white papers), news, and events

In Summary…

FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense/Industry

- Key partners have been identified - and their sub-tier source requirements and selections are in progress
  - Partner locations, products provided, and contacts are available on the FCS web site and in the handout we have available here today
- Our Outreach and Supplier Diversity initiatives are in place - with focused and concerted collaborative efforts to identify and incorporate the “Best of Industry”
- The FCS program - already one of the largest Government Defense programs - has just increased significantly in content and scope.
  - Additional emphasis placed on the spiraling out of capability to the warfighter after modeling & simulation and test
  - Planning for capability spirals and efforts toward previously deferred systems are now underway in conjunction with our partners
- With such a large, evolving, and dynamic program, continue to watch the FCS web site for further opportunities and developments as they are identified



Questions and Answers